

SUBSTITUTE SPECIFICATION

SPECIFICATION

TITLE

**"METHOD FOR OPERATING A COMPUTED TOMOGRAPHY APPARATUS
HAVING A DIAPHRAGM AT THE RADIATION DETECTOR"**

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BACKGROUND OF THE INVENTION

JY. This Application is a con. of PCT/DE 03/02890, 9/01/2003.
Field of the Invention

The present invention concerns a method for operating a computed tomography apparatus with an x-ray radiator rotatable around a system axis, with an x-ray detector and with a radiator-side gating device that has two opposite
10 absorber elements that can be adjusted in a straight line, in particular that can be adjusted with regard to their separation from one another, for variable delimitation of the ray beam. An examination subject is scanned during rotation of the x-ray radiator and relative translational movement between the x-ray radiator and the examination subject in the direction of the system axis.

15 **Description of the Prior Art**

In an examination of an examination subject or a patient in an x-ray diagnostic apparatus, the examination subject is moved into an x-ray beam emitted by an x-ray source, and the radiation actuated by the subject is detected by an x-ray detector. The examination subject is thus located in the beam path
20 between the x-ray source and the x-ray detector. The typical x-ray tubes used as x-ray radiators emit x-ray radiation in a significantly larger solid angle than is necessary for examination at the patient. In order to prevent unnecessary radiation exposure at the patient, unnecessary x-rays are gated (blanked out). For this, in conventional x-ray apparatuses it is known to dispose a radiator-side
25 gating device immediately after the x-ray radiator in the beam path. Such gating device is also designated as a primary beam diaphragm. For example, such a primary beam diaphragm, with diaphragm plates that can be moved opposite to one another as absorber elements, is known from European Application 0 187 245.